The business benefits of Web standards and accessibility

Introduction - What exactly are Web standards and Web accessibility?

Simply put, Website accessibility is about making a Website accessible to the largest range of people possible. For the majority of Website owners, this is simply good business sense. After all, the more people you have using your site the better. In order to construct an *accessible* Website, it must conform to Web standards.

The World Wide Web Consortium (W3C), other standards bodies, and the manufacturers of current versions of Internet Explorer, Netscape, Opera, and open-source browsers have set new standardised technologies like Cascading Style Sheets (CSS) and XHTML that allow Web designers and companies the ability to create sites that conform to international standards, and are in turn fully accessible.

This document explains why this is important and how Web developers, Web surfers and most importantly owners of Websites benefit.

How do standards work?

Put briefly and as simply as possible, when standards are used the *content* of a Website is separated from the *design, layout and presentation*. The design and presentation is controlled in a separate file that will make it easier for staff to maintain the rest of the website. This file referred to as a *style sheet.*

What are the benefits of using Web standards?

Your Website will be easier to manage, maintain and re-design

- Design tweaks or changes are also relatively straight forward, unlike traditional HTML Websites. E.g. Global site changes are easier and faster, if your company had a new corporate font, every page in your entire Website could be changed in 30 seconds.
- Completely updating the design of a Website can happen in days instead of weeks and at very low cost. Because the content and design is held in separate files, only a new design and *style sheet* needs to be created. The entire Website and content does not need to be built from scratch.
- Reduces dependency on one developer. Standards based code can be understood and maintained by any reputable Web development firm. Once the site is constructed there is less fancy scripting, no secret commands, just straightforward code. Simplified code that enables anybody with minimal HTML knowledge to edit.
- Once the initial website construction is completed, future major enhancements and page additions can be completed faster and easier than traditional HTML.

Your customers will be able to control how *they* want to use your Website

- Using standards you can give the user the ability to change the entire appearance of a page by clicking a button. This means you can give the user control over how they prefer to view your site, instead of dictating it to them. For example, increasing the text size, moving the navigation bar to another place on the screen, etc.
- Printing and copying content can be made significantly easier to the user.

Your Website will be compatible with new browsing technologies

- Just because your Website works in browsers right now, can you guarantee that it will work the same two years from now with new technology? Using standards guarantees this and saves expenses down the track of making changes to your Website if browsers stop supporting non-standardised code you may be using.

Your Website will be compatible with all different technologies

- All the different types of browsers can understand standards based code. This significantly reduces appearance and rendering differences in various browsers. So Website will be compatible with all browsers and operating systems

Your Website will be able to be accessed by more people

- Standards based Websites can be rendered on any Internet device such as mobile phones, PDAs, text only screen readers (for the visually impaired), and many other technologies that are becoming more popular. By not locking people out of your Website, you get that many more potential customers.

Your Website will not put you at risk of incurring legal fees

- Sites developed in standards technology comply with the Government regulations and accessibility requirements, which all Federal government Websites and sites that receive federal funding are required to meet. In Australia, the Disability Discrimination Act 1992 requires that all web pages be accessible to users with a disability. The Human Rights and Equal Opportunity Commission have issued an Advisory Note that recommends the use of the World Wide Web Consortium's Web Content Accessibility Guidelines 1.0 to ensure that legal obligations have been met
- This can prevent possible legal action being taken by disabled users. This happened to IBM who built the Sydney Olympic Games Website, when a blind user sued the company because they could not use the Website. See http://www.tomw.net.au/2001/bat2001.html#maguire.
- Australian governments decided to adopt the W3C Guidelines, with the Commonwealth Government requiring all agency web sites to pass accessibility tests by 1 December 2000.

Your Website will be faster to download and cheaper to host

- Standards based sites are smaller in file size and will reduce bandwidth charges by up to 50%. This is a real savings to sites with a lot of traffic and high bandwidth charges. It also means users download less information and this also reduces *their* bandwidth costs.
- File size is reduced by 25-50%; this allows pages to load up to twice as fast as non-standards based sites. The 'design' of your site is downloaded once only in the *style sheet*, not built into every page individually.

Your Website will appear higher in search engines

- Getting a high listing in Google is critical to the success of many Websites and businesses. Using standards dramatically increases search engine rankings. Search engines index sites from the top down and many sites with JavaScript rollovers, dynamic content, or flash elements cannot be properly indexed. Standards based sites leave only the content available for search engines to index. All extraneous code is removed so instead of "weeding" through all the extra stuff that isn't relevant to the page, all that's left for search engines to process is the vital information.
- Search engines are increasingly ranking Websites based on the actual content in the page, rather than falling for outdated tricks such as registering domain names with keywords in the name. Standards based sites keep all headings and content within the basic HTML code that search engines love! Dramatically increasing search engine listings.

Your Website will get great publicity

- While there are still not many Websites using standards, there are CSS gallery Websites that are listing well designed and properly built sites. Because of their popularity, being listed in these galleries also assists increasing Google rankings. Remember, the more sites that link to you, and vice versa, the higher your listing will be. By spending the extra time and attention to detail on design and standards compliance issues will ensure a listing with these galleries.

Who Benefits?

- Website owners through a Website that has all the benefits mentioned above

- All Web surfers through a better Web experience

- People surfing the Web using mobile phones and PDA's. These people are possibly the most affluent and technically advanced group of people suffering from Web accessibility issues.

- People using old browsers or old computers. Many companies and organisations have standardised on older browser versions and don't use the latest computer equipment.

- People using slow internet connections.

- The "Silver Surfer" is one of the biggest growing markets on the Web and has a large amount of disposable income. This sector has accessibility issues such as reduced mobility, reduced hand-eye co-ordination and poor vision.

- Young Internet users can also have poor hand-eye co-ordination, coupled with a low reading age.

- People who don't speak or understand English fluently.

- Blind, partially sighted and the colour blind are probably the most obvious group of individuals affected by accessibility issues. This group also makes up a very large percentage of Web surfers

- People with physical disabilities, such as those with impaired mobility

Why it works so well

In the beginning, the Internet was primarily a medium for academics, researchers, and the military to share information. However, it didn't take long for entrepreneurial visionaries to realise that this new medium was ideal for selling everything from fresh produce and dog-food to used cars and streaming sports coverage.

However, as with any medium in its infancy, the early Internet was aesthetically 'crude' (and not really all that enticing to consumers) until developers learned of coding workarounds and tricks that for their time were so brilliant, in fact, that they are still the most prevalent method of laying out Web pages today. For the more technically minded the techniques involved using tables, nested tables and spacer GIFs

Thanks now to CSS standards it is possible to lay out beautiful sites that are faster to load, easier to redesign, and more accessible to everyone. Modern browsers are much better at rendering Web standards and do not need to use outdated HTML 'archaic' methods any more such as tables.

Conclusion

Standards based Web sites are easier and cheaper to maintain, compliant with Web accessibility requirements, are accessible on a variety of Internet devices and browsers, deliver precise layout for screen rendering as well as printed documents, separate content from presentation, enables transition from HTML to XML-based technologies, and much more.

Separating content from presentation and designing your Website or moving your Website to a standards based approach will accomplish several things for your business both today and tomorrow. In the near term, it will mean you have a Website that is less expensive to maintain, allows for more visitors to enjoy your content, and is compliant with emerging accessibility requirements. In the long run, you will have a site that is less dependent upon an individual developer or designer, offers content to a wider audience through scalable technologies and a better return on your investment.

Examples of standards based sites by EPS

- www.autismvictoria.org.au
- www.abstractsmanager.com

CSS Galleries

- http://www.csszengarden.com/
- http://www.cssvault.com/
- http://www.stylegala.com
- http://www.cssbeauty.com

Acknowledgements and references

Content in this document has been referenced from the following Web sites which also contain additional information. Some of these links may now be off-line.

- http://www.webstandards.org/about/
- http://www.sitecrafting.com/designing_Web_standards.php
- http://www.adaptivepath.com/publications/essays/archives/000266.php
- http://devedge.netscape.com/viewsource/2003/why-Web-standards/
- http://www.andybudd.com/blog/archives/000143.html
- http://www.hotdesign.com/seybold/index.html
- http://www.w3.org/WAI/bcase/benefits.html
- http://www.w3schools.com/quality/quality_accessibility.asp
- http://www.w3.org/WAI/EO/Drafts/bcase/
- http://www.w3.org/QA/2002/07/WebAgency-Requirements
- http://www.articlecity.com/articles/Web_design_and_development/article_103.shtml

Contact EPS today to discuss the construction of your standards based Website or Web application and start reaping the benefits